Reviewer’s report

Title: First-attack Pediatric Hypertensive Crises Presenting to the Pediatric Emergency Department

Version: 1 Date: 31 August 2012

Reviewer: Janusz Feber

Reviewer’s report:

This study describes clinical manifestations of children and adolescents with hypertensive urgencies and hypertensive emergencies. Whilst it is an interesting topic worth publication, the study was performed retrospectively on a small number of patients; this should therefore be mentioned in the manuscript. Another major point is that the blood pressure measurements are probably done by multiple observers over a long period of time, which should be discussed in the manuscript. In addition, BP index or BP Z-scores should be reported in addition to absolute BP data.

Minor points for revision

Abstract:
The sentence “Primary clinicians should take attention to the pediatric patients..” should be reworded. Suggestion: “Primary clinicians should pay attention to their pediatric patients…”.

It should be stated that it is a retrospective study.

There is a spelling error in the abstract conclusion, please correct.

Introduction:
The main objective of the study is not clearly formulated. What do the authors mean by “clinically analyze”?

Methods:
Exclusion criteria where the presence of a medical condition is incompatible with the definition of hypertension? Do the authors mean children who are not hypertensive, as per the definition of hypertension in children and adolescents?

End organ damages were defined as renal impairment, myocardial, renal, hepatic, hematologic and neurologic manifestation, all derived from HTN. What exactly was measured to assess the end organ damage?

Methods:
The sentence, “Total 112 patients presented to our pediatric ED with the primary and secondary diagnosis of hypertension”, should be reworded as: A total of 112 patients presented to our pediatric ED with the diagnosis of primary and secondary hypertension.”
What do the authors mean by the “rule of thumb” in the following sentence? “If the systolic BP (SBP) or diastolic BP (DBP) was higher than the “rule of thumb” for the determination of BP thresholds for the diagnosis of arterial hypertension in children and adolescents, it was re-measured from other limbs.” What threshold values were used for BP measurements of the limbs?

If the BP was measured repeatedly in each patient, what values were taken from the analysis? The highest BP value? An average BP value? How many BP values per patient were available and which ones were then used for comparison with the normative values/BP threshold?

What BP standards were actually used for the definition of hypertension? What was the reason to not use the normative values from the Fourth Report (Pediatrics 2004;114:555)?

The sentence, “Asymptomatic HTN were defined by us for patients with BP higher than the 95th percentile in three times but presenting with unrelated symptoms to hypertension before and after arriving pediatric ED”, should be reworded.

The legend to Table 1 should be changed as the term correlation is not correct; it is a description of results obtained in various age categories. The same applies for the legend to Table 2.

Data on Figure 2 is already presented in the tables, therefore Fig 2 can be deleted.

Discussion
The discussion contains several non-English expressions; please correct.

The discussion should state the limitations of the study such as retrospective study, small sample size, BP taken over a span of an 8 year period etc. Was the BP measured with the same BP device over an 8 year period?

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.